

Anti-Cyclin B1/CCNB1 Antibody Picoband®

Catalog Number: A00745-1

About CCNB1

G2/mitotic-specific cyclin-B1 is a protein that in humans is encoded by the CCNB1 gene. It is mapped to 5q13.2. The protein encoded by this gene is a regulatory protein involved in mitosis. The gene product complexes with p34 (cdc2) to form the maturation-promoting factor (MPF). The encoded protein is necessary for proper control of the G2/M transition phase of the cell cycle.

Overview

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|----------------------|---|
| Product Name | Anti-Cyclin B1/CCNB1 Antibody Picoband® |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-Cyclin B1/CCNB1 Antibody Picoband® catalog # A00745-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | ELISA, Flow Cytometry, IF, IHC, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. |
| Storage Instructions | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P14635 |

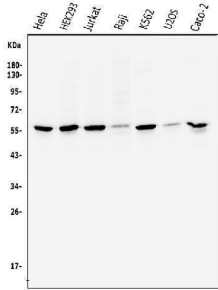
Technical Details

| | |
|-------------------------------|--|
| Immunogen | E.coli-derived human Cyclin B1/CCNB1 recombinant protein (Position: M1-L383). |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC. |
| Cross Reactivity | No cross-reactivity with other proteins. |
| Isotype | Rabbit IgG |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |

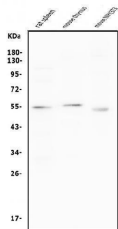
Suggested Dilutions

Western blot, 0.25-0.5ug/ml, Human, Mouse, Rat
Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat
Immunocytochemistry/Immunofluorescence, 2ug/ml, Human
Flow Cytometry (Fixed), 1-3ug/1x10⁶ cells, Human
ELISA, 0.1-0.5ug/ml, -

Anti-Cyclin B1/CCNB1 Antibody Picoband® (A00745-1) Images

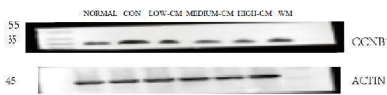


Western blot analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human HEK293 whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human Raji whole cell lysates, Lane 5: human K562 whole cell lysates, Lane 6: human U2OS whole cell lysates, Lane 7: human CACO-2 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CCNB1 antigen affinity purified polyclonal antibody (Catalog # A00745-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CCNB1 at approximately 55KD. The expected band size for CCNB1 is at 55KD.

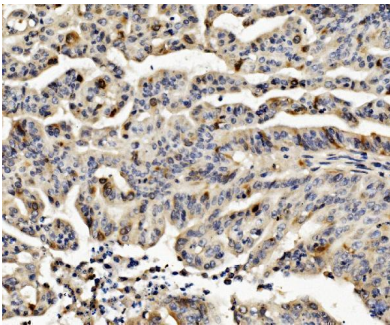


Western blot analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat spleen tissue lysates, Lane 2: mouse thymus tissue lysates, Lane 3: mouse NIH-3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CCNB1 antigen affinity purified polyclonal antibody (Catalog # A00745-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CCNB1 at approximately 55KD. The expected band size for CCNB1 is at 55KD.

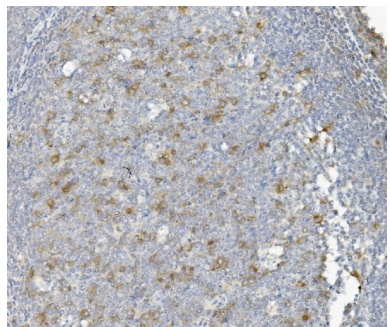
Western blot analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: normal group-rat colon tissue lysates, Lane 2: model group-model rat colon tissue, Lane 3: low Chinese medicine group-model rat colon tissue, Lane 4: medium Chinese medicine group-model rat



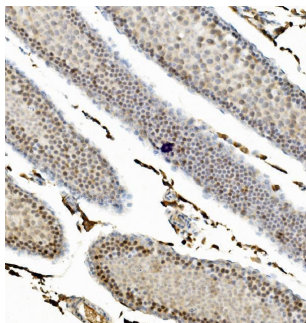
colon tissue, Lane 5: high Chinese medicine group-model rat colon tissue, Lane 6: western medicine group-model rat colon tissue. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CCNB1 antigen affinity purified polyclonal antibody (Catalog # A00745-1) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a HRP Conjugated AffiniPure Goat Anti-rabbit IgG (H+L) secondary antibody at a dilution of 1:5000 for 1 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with ChemiDoc MP system. The expected band size for CCNB1 is at 55KD.



IHC analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). CCNB1 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCNB1 Antibody (A00745-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

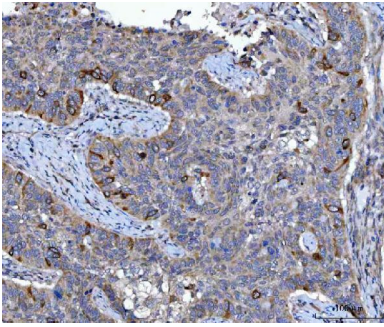


IHC analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). CCNB1 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCNB1 Antibody (A00745-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

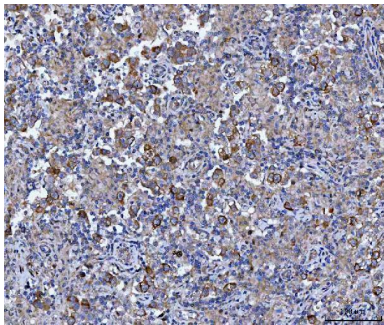


IHC analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). CCNB1 was detected in paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCNB1 Antibody (A00745-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

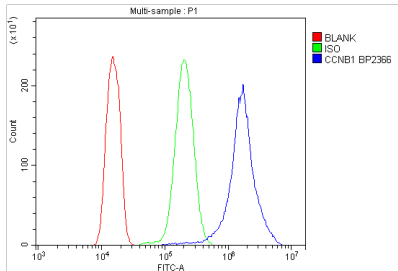
IHC analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). CCNB1 was detected in paraffin-embedded section of human laryngeal squamous cell carcinoma tissue.



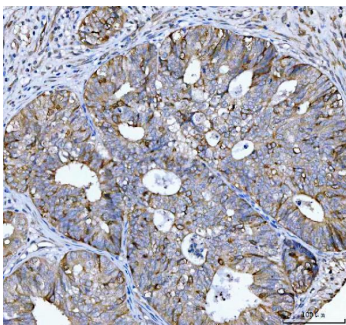
Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCNB1 Antibody (A00745-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). CCNB1 was detected in paraffin-embedded section of human seminoma testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCNB1 Antibody (A00745-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

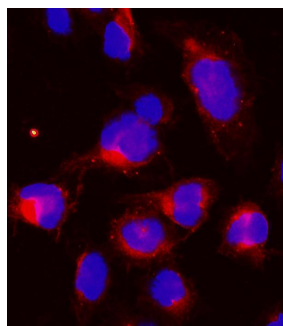


Flow Cytometry analysis of A431 cells using anti-CCNB1 antibody (A00745-1). Overlay histogram showing A431 cells stained with A00745-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CCNB1 Antibody (A00745-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IHC analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). CCNB1 was detected in paraffin-embedded section of human endometrial adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CCNB1 Antibody (A00745-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IF analysis of CCNB1 using anti-CCNB1 antibody (A00745-1). CCNB1 was detected in immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using



IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-CCNB1 Antibody (A00745-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

2 Publications Citing This Product

1. PubMed ID: 10.1111/j.1440-1746.2006.04366.x, Specific COX₂ inhibitor, meloxicam, suppresses proliferation and induces apoptosis in human HepG2 hepatocellular carcinoma cells
2. PubMed ID: 30867962, Effects of Buddleja officinalis granules on apoptosis factors Bax, Caspase-3, Fas, and FasL in lacrimal gland cells of castrated male rabbits Genyan Qin, et al. J Ophthalmol. 2019 Feb 5;2019:5916243. doi: 10.1155/2019/5916243. eCollection 2019.

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Anti-Cyclin B1/CCNB1 Antibody

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